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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

DESIR, PIERRE LOUIS

ART UNIT	PAPER NUMBER
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2681

DATE MAILED: 08/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<p align="center"><b>Office Action Summary</b></p>	<p><b>Application No.</b></p> <p>10/720,087</p>	<p><b>Applicant(s)</b></p> <p>MAEDA ET AL.</p>	
	<p><b>Examiner</b></p> <p>Pierre-Louis Desir</p>	<p><b>Art Unit</b></p> <p>2681</p>	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 November 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s)        is/are withdrawn from consideration.
- 5) ☐ Claim(s)        is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s)        is/are objected to.
- 8) ☐ Claim(s)        are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No.       .
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. <u>      </u> |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)                     |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>Feb. 02, 2004</u> . | 6) <input type="checkbox"/> Other: <u>      </u>  |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 9 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 9 recites the limitation "the position recording center" in line 3 of the claim. There is insufficient antecedent basis for this limitation in the claim.

Note: for the process of examination, examiner will interpret "the position recording center" as "the position recording apparatus."

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-5, 11, 16-18 are rejected under 35 U.S.C. 102(e) as being anticipated by Pirila, U.S. Patent No. 6674860.

Regarding claim 1, Pirila discloses a system comprising a terminal for measuring the position of the mobile body (i.e., the mobile station measures the time difference of the received signals, which are used for calculation of the mobile station's coordinates) (see fig. 3, col. 6, lines 37-42), encrypting the measured position information by predetermined encryption means (i.e., the location coordinates are encrypted using the same kind of encryption as in the transfer of base station location information) (see fig. 3, col. 6, lines 44-45) and transmitting the encrypted position information (the location information is transferred to the serving base station) (see fig. 3, col. 6, lines 42-43); and a position recording apparatus for receiving the position information and recording the position information in a state where it is encrypted (i.e., the serving base station transferred the encrypted coordinates to mobile location center) (see fig. 3, col. 6, lines 48-50).

Regarding claim 2, Pirila discloses a system (see claim 1 rejection) wherein the position recording apparatus transmits to the terminal the encrypted position information of the mobile body corresponding to the terminal, based on a request from the terminal (i.e., based on an inherent request, the mobile location center encrypts the location information and sends it, through the base station, to the mobile station) (see col. 7, lines 28-36), and wherein the terminal decrypts the encrypted position information using the decryption data that the terminal retains (i.e., the mobile station decrypts the received location information) (see fig. 3, col. 6, lines 30-36).

Regarding claim 3, Pirila discloses a system (see claim 1 rejection) wherein when the position recording apparatus has received predetermined permission information from a first terminal (i.e., transfer to the base station is realized e.g. in response to a request sent by the

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system to the mobile station. Thus, when the MLC received the location coordinates, it also receives a inherent permission to transfer requested information) (see col. 6, lines 46-50), the position recording apparatus transmits the encrypted position information of the mobile body corresponding to the first terminal, based on a request from a second terminal (i.e., based on an inherent request, the mobile location center encrypts the location information and sends to the base station for transmission to the mobile station) (see col. 7, lines 28-36), and wherein when the second terminal has received the decryption data retained by the first terminal from the first terminal, the second terminal can decrypt the encrypted position information (i.e., the serving base station BTSA sends to the mobile station information about the decryption key used in the location process, whereby the mobile station decrypts the location information) (see fig. 3, col. 6, lines 30-36).

Regarding claim 4, Pirila discloses a system (see claim 1 rejection) wherein when the position recording apparatus has received predetermined permission information from the terminal (see col. 6, lines 46-50), the position recording apparatus transmits the encrypted position information of a mobile body corresponding to the terminal, to a position information service center (i.e., based on an inherent request, the mobile location center encrypts the location information and sends to the base station for transmission to the mobile station. The location is received at the mobile intelligent module, which comprises means for receiving encrypted information) (see col. 5, lines 19-25, col. 7, lines 28-36), based on a request from the position information service center providing predetermined services to the terminal (inherent request for location update information), and wherein when the position information service center has received the decryption data retained by the terminal from the terminal, the position information

service center decrypts the encrypted position information (i.e., the serving base station BTSA sends to the mobile station information about the decryption key) (see fig. 3, col. 6, lines 30-36), executes a predetermined process for the decrypted position information and transmits the result of the process to the terminal (i.e., the location data and decryption key received are processed in the intelligent module) (see col. 6, lines 30-36 and col. 8, lines 24-27).

Regarding claim 5, Pirila discloses a system (see claim 1 rejection) wherein when the position recording apparatus has received the decryption data retained by the terminal from the terminal (see col. 5, lines 19-25, col. 7, lines 28-36), the position recording apparatus, based on a request from the terminal, decrypts the encrypted position information of a mobile body corresponding to the terminal using the decryption data information (i.e., the serving base station BTSA sends to the mobile station information about the decryption key used in the location process, whereby the mobile station decrypts the location information) (see fig. 3, col. 6, lines 30-36), executes a predetermined process for the decrypted position information and transmits the result of the process to the terminal (i.e., the location data and decryption key received are processed in the intelligent module) (see col. 6, lines 30-36 and col. 8, lines 24-27).

Regarding claim 11, Pirila discloses a system (see claim 1 rejection), wherein the terminal comprises a plurality of encryption means, and is capable of switching the encryption means for encrypting the position information, based on the position of the terminal and/or the time, or on an instruction from a mobile body (i.e., the decryption key can be changed, in which case the new decryption key is transferred to the mobile station advantageously periodically in conjunction with the location update procedure) (see abstract).

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Regarding claim 16, Pirila discloses a terminal comprising a measuring unit for measuring the position of a mobile body (i.e., location information can be computed using algorithm stored in the intelligent module) (see col. 4, lines 1-3); an encryption unit for encrypting the measured position information by predetermined encryption means (i.e., location information sent to the system may be encrypted in the intelligent module) (see col. 4, lines 9-12); a communication unit for transmitting the encrypted position information (see col. 8, lines 31-42); and decryption unit having decryption data for decrypting the encrypted position information (i.e., decryption takes place in the intelligent module) (see col. 3, line 67 through col. 4, line 1), the decryption unit when receiving the position information from the communication unit, decrypting the received position information using the decryption data (i.e., the serving base station BTSA sends to the mobile station information about the decryption key used in the location process, whereby the mobile station decrypts the location information) (see fig. 3, col. 6, lines 30-36).

Regarding claim 17, Pirila discloses position recording apparatus comprising: a communication for receiving encrypted position information relating to the position of at least one mobile body, from a terminal of the mobile body (i.e., the serving base station transferred the encrypted coordinates to mobile location center) (see fig. 3, col. 6, lines 48-50); and a database in which the position information is recorded in the encrypted state (see fig. 3, col. 6, lines 48-50).

Regarding claim 18, Pirila discloses an apparatus (see claim 17 rejection) further comprising: an acquisition unit for acquiring the position information recorded in the database, in response to a predetermined request (i.e., based on an inherent request, the mobile location center encrypts the location information and sends it, through the base station, to the mobile station)

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(see col. 7, lines 28-36), wherein the communication unit transmits the acquired position information from the communication unit in the encrypted state (see col. 7, lines 28-36).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 6-10, 12-15, 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pirila in view of Havinis et al. (Havinis), U.S. Patent No. 6216007.

Regarding claim 6, Pirila discloses a system as described above (see claim 1 rejection).

Although Pirila discloses a system as described, Pirila does not specifically disclose a system wherein when the position recording apparatus has received the decryption data retained by the terminal from the terminal, the position recording apparatus, based on a request from the terminal, decrypts the encrypted position information of a mobile body corresponding to the terminal using the decryption data and transmits the decrypted position information to a position information service center providing predetermined services to the terminal, and wherein the position information service center executes a predetermined process for the decrypted position information and transmits the result of the process to the position recording apparatus, and wherein the position recording apparatus transmits the result of the process to the terminal.

However, Havinis discloses a system wherein when the Positioning Measurement Module (PMM) obtains positioning measurement information, this information is encrypted and



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sent to the Location Calculation Module (LCM), which then deciphers the encrypted information and uses the information to again with a ciphering algorithm before being passed to either a transceiver (TRX) unit within the mobile terminal for transmission to the network or a location application (LA) internal to the mobile terminal (see col. 3, lines 22-30).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings to arrive at the claimed invention. A motivation for doing so would have been to ensure the security as related to the transmission of the location information.

Regarding claim 7, Pirila discloses a system as described above (see claim 1 rejection).

Although Pirila discloses a system as described, Pirila does not specifically disclose a system wherein when the position recording apparatus has received predetermined permission information from the terminal, the position recording apparatus, based on a request from a third party, decrypts the encrypted position information of a mobile body corresponding to the terminal using the decryption data, executes a predetermined process for the decrypted position information and transmits the result of the process to the third party.

However, Havinis discloses a system wherein when the Positioning Measurement Module (PMM) obtains positioning measurement information, this information is encrypted and sent to the Location Calculation Module (LCM), which then deciphers the encrypted information and uses the information to again with a ciphering algorithm before being passed to either a transceiver (TRX) unit within the mobile terminal for transmission to the network or a location application (LA) internal to the mobile terminal (see col. 3, lines 22-30).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings to arrive at the claimed invention. A motivation for doing so would have been to ensure the security as related to the transmission of the location information.

Regarding claims 8-9, Pirila discloses a system as described above (see claim 7 rejection).

Although Pirila discloses a system as described, Pirila does not specifically disclose a system wherein the predetermined process is a process for responding to a query relating to a mobile body corresponding to the terminal.

However, Havinis discloses a system wherein once the LCM calculates the location information, the LCM preferably encrypts the calculated location information, and due to an inherent request, passes the location information for transmission to a Location Application (see col. 5, lines 5-21). Also, once a request is made, the location information will be calculated and a response to the request (the result of the calculation) will be transmitted to the module or party who requested the information; thus, there is a guarantee function for the response (as related to claim 9).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings as described to arrive at the claimed invention. A motivation for doing so would have been to ensure the proper transmission of the location information.

Regarding claim 10, Pirila discloses a system as described above (see claim 7 rejection).

Although Pirila discloses a system as described, Pirila does not specifically disclose a system wherein the query is at least one of "where is the current position of the mobile body", "whether the mobile body is/was at a designated place", "whether the mobile body is/was at a

designated place on a designated date at a designated time", "where is the position at which the mobile body was on a designated date at a designated time" and "on which data and at what time the mobile body was at a designated place".

However, Havinis discloses a system wherein the query is "where is the current position of the mobile body" (i.e., request for information about the current location of the mobile station) (see col. 2, lines 1-5).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings as disclosed to arrive at the claimed invention. A motivation for doing so would have been to obtain the proper result as related to the current location of the terminal.

Regarding claim 12, Pirila discloses a system (see claim 1 rejection) wherein the terminal comprises a personal authentication means for a mobile body (i.e., SIM module) (see fig. 10, col. 8, lines 48-49), and wherein when a personal authentication is successfully completed (i.e., SIM module manages the data required for the identification of the subscriber) (see col. 8, lines 65-67).

Although Pirila discloses a system as described above, Pirila does not specifically disclose a system wherein the terminal can measure the position of the mobile body, encrypt the measured position information with predetermined encryption means and transmit the encrypted position information.

However, Havinis discloses a system wherein once the LCM calculates the location information, the LCM preferably encrypts the calculated location information, and due to an

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inherent request, passes the location information for transmission to a Location Application (see col. 5, lines 5-21).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings to arrive at the claimed invention. A motivation for doing so would have been to ensure the security as related to the transmission of the location information.

Regarding claim 13, Pirila discloses a system (see claim 1 rejection) wherein the home location register performs a “cancel location” procedure for the previous register (see figs 8 and 107, line 67 through col. 8, line 1). Thus, by performing the “cancel location” procedure, the location information and its related data will be erased from the temporary memory to give place to the new incoming location information and its related data.

Although Pirila discloses a system as described, Pirila does not specifically disclose a system wherein the position recording apparatus receives the decryption data from the terminal and decrypts the encrypted position information using the decryption data.

However, Havinis discloses a system wherein when the Positioning Measurement Module (PMM) obtains positioning measurement information, this information is encrypted and sent to the Location Calculation Module (LCM), which then deciphers the encrypted information and uses the information to again with a ciphering algorithm before being passed to either a transceiver (TRX) unit within the mobile terminal for transmission to the network or a location application (LA) internal to the mobile terminal (see col. 3, lines 22-30).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings to arrive at the claimed invention. A motivation for doing so would have been to ensure the security as related to the transmission of the location information.

Regarding claim 14, Pirila discloses a system as described above (see claim 13 rejection).

Although Pirila discloses a system as described, Pirila does not specifically disclose a system wherein the position recording apparatus executes the predetermined process.

However, Havinis discloses a system wherein the position recording apparatus executes the predetermined process (i.e., once the LCM calculates the location information, the LCM preferably encrypts the calculated location information, and due to an inherent request, passes the location information for transmission to a Location Application) (see col. 5, lines 5-21).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings as described to arrive at the claimed invention. A motivation for doing so would have been to ensure the proper transmission of the location information.

Regarding claim 15, Pirila discloses a system as described above (see claim 13 rejection).

Although Pirila discloses a system as described, Pirila does not specifically disclose a system wherein the position recording apparatus transmits the decrypted position information to a position information service center providing predetermined services utilizing the position information and receives from the position information service center the result of the predetermined process executed by the position information service center.

However, Havinis discloses a system wherein when the Positioning Measurement Module (PMM) obtains positioning measurement information, this information is encrypted and sent to the Location Calculation Module (LCM), which then deciphers the encrypted information and uses the information to again with a ciphering algorithm before being passed to either a transceiver (TRX) unit within the mobile terminal for transmission to the network or a location application (LA) internal to the mobile terminal (see col. 3, lines 22-30).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings to arrive at the claimed invention. A motivation for doing so would have been to ensure the security as related to the transmission of the location information.

Regarding claim 19, Pirila discloses an apparatus (see claim 17 rejection) further comprising: an acquisition unit for acquiring the position information recorded in the database, in response to a predetermined request (i.e., based on an inherent request, the mobile location center encrypts the location information and sends it, through the base station, to the mobile station) (see col. 7, lines 28-36).

Although Pirila discloses a system, which comprises a decryption unit a decryption unit for decrypting encrypted position information, Pirila does not specifically disclose an apparatus wherein when the decryption unit receives, together with the request, the decryption data for decrypting the encrypted position information, the decryption unit decrypts the acquired encrypted position information and transmits the decrypted position information.

However, Havinis discloses a system wherein when the Positioning Measurement Module (PMM) obtains positioning measurement information, this information is encrypted and sent to the Location Calculation Module (LCM), which then deciphers the encrypted information and uses the information to again with a ciphering algorithm before being passed to either a transceiver (TRX) unit within the mobile terminal for transmission to the network or a location application (LA) internal to the mobile terminal (see col. 3, lines 22-30).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings to arrive at the claimed invention. A motivation for doing so would have been to ensure the security as related to the transmission of the location information.

Regarding claim 20, Pirila discloses an apparatus (see claim 17 rejection) further comprising: an acquisition unit for acquiring the position information recorded in the database, in response to a predetermined request (i.e., based on an inherent request, the mobile location center encrypts the location information and sends it, through the base station, to the mobile station) (see col. 7, lines 28-36).

Although Pirila discloses a system, which comprises a decryption unit for decrypting encrypted position information, Pirila does not specifically disclose an apparatus comprising a processing unit for executing a predetermined process for the decrypted position information, wherein when the decryption unit receives, together with the request, the decryption data for decrypting the encrypted position information, the decryption unit decrypts the acquired encrypted position information and the processing unit transmits the result of the predetermined process executed for the decrypted position information.

However, Havinis discloses a system wherein when the Positioning Measurement Module (PMM) obtains positioning measurement information, this information is encrypted and sent to the Location Calculation Module (LCM), which then deciphers the encrypted information and uses the information to again with a ciphering algorithm before being passed to either a transceiver (TRX) unit within the mobile terminal for transmission to the network or a location application (LA) internal to the mobile terminal (see col. 3, lines 22-30).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings to arrive at the claimed invention. A motivation for doing so would have been to ensure the security as related to the transmission of the location information.

Regarding claim 21, Pirila discloses an apparatus (see claim 20 rejection) further comprising: a temporary memory for storing the decryption data, the decrypted position information and the result of the process (i.e., work memory) (see fig. 10, col. 8, lines 54-55); and an erasing unit for erasing the decryption data, the decrypted position information and the result of the process from the temporary memory after transmitting the result of the process (i.e., the home location register performs a "cancel location" procedure for the previous register. Thus, by performing the "cancel location" procedure, the location information and its related data will be erased from the temporary memory to give place to the new incoming location information and its related data) (see figs 8 and 107, line 67 through col. 8, line 1).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pierre-Louis Desir whose telephone number is 703-605-4312. The examiner can normally be reached on (571) 272-7799.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Feild can be reached on (571) 272-4090. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Pierre-Louis Desir  
AU 2681  
08/22/2005

**JEAN GELIN**  
**PRIMARY EXAMINER**

